



CHARTER of the
SOFTWARE PRODUCTIVITY, SUSTAINABILITY, AND QUALITY
INTERAGENCY WORKING GROUP

SUBCOMMITTEE ON NETWORKING AND INFORMATION TECHNOLOGY RESEARCH AND
DEVELOPMENT
COMMITTEE ON TECHNOLOGY
NATIONAL SCIENCE AND TECHNOLOGY COUNCIL

A. Official Designation

The Software Productivity, Sustainability, and Quality (SPSQ) Interagency Working Group (IWG) is hereby established by action of the Subcommittee on Networking and Information Technology Research and Development (NITRD) of the National Science and Technology Council (NSTC) Committee on Technology (CoT)¹.

B. Purpose

The purpose of the SPSQ IWG is to coordinate the R&D efforts across agencies that transform the frontiers of software science and engineering and to identify R&D areas in need of development that span the science and the technology of software creation and sustainment. The core SPSQ R&D activities are software productivity, software quality, software cost, software economics, responsiveness to change, and sustainability. The R&D agenda coordinated by this IWG is to identify and foster research toward improved software development methods and environments. The drivers of this research agenda include information technology, industrial production, cyber security, computational science and engineering, evolving areas - such as the Internet of Things (IoT), and highly complex, interconnected software-intensive systems.

C. Objectives

The primary SPSQ IWG objective is to accelerate progress in the science and technology of software production to deliver orders of magnitude improvement in software defect rates and in the time and cost of creating and sustaining software to drive innovation to the strategic advantage of the United States and develop the next-generation software-intensive systems. Another SPSQ IWG objective is to coordinate the R&D efforts across agencies and identify R&D areas in need of development that span the science and the technology of software creation and sustainment.

¹ The NSTC/CoT/NITRD was originally chartered on December 10, 1991. The most recent charter was signed July 10, 2013.

D. Functions

The SPSQ IWG shall perform the following functions:

- Across-agency coordination:
 - Coordinate and collaborate across Federal agencies, other NITRD bodies, and other NSTC committees as appropriate on issues of mutual interest.
 - Develop and maintain strong and forward-looking agendas that represent the current and future evolution of Information Technology Research and Development (IT R&D).
 - Identify interagency and cross-cut opportunities for collaboration, coordination, and leveraging among agencies in specific areas in IT R&D.
 - Provide a forum for agencies to exchange program-level information about agency activities (Annual Planning Meeting or Data Call).
 - Select and maintain collegial leadership and dynamic membership.
- Work with the NITRD Program:
 - Develop, maintain, and periodically update interagency short-, mid-, and/or long-range strategic plans and priorities.
 - Participate and support NITRD outreach (workshops, conferences, and other meetings) to support the IWG's agenda.
 - Prepare and maintain an active charter with a specific purpose and objectives.
 - Provide inputs to NITRD's annual Supplement to the President's Budget².
 - Provide inputs to NITRD's annual Activities Report summarizing the IWG's activities.
 - Schedule and participate in regularly scheduled and ad hoc meetings, and maintain documentation of the meeting discussions.
- Work with other stakeholders
 - Assist and support the NITRD Subcommittee in responding to the recommendations of the President's Council of Advisors on Science and Technology (PCAST), and responding to inquiries from NSTC, Office of Science and Technology Policy (OSTP), Office of Management and Budget (OMB), and Congress.
 - Provide inputs to NSTC strategic and Federal Plans when requested.

E. Membership

The following NITRD Member agencies are represented on the SPSQ IWG³:

- Department of Commerce;
- Department of Defense;
- Department of Energy;
- Department of Health and Human Services;
- Department of Homeland Security;
- Department of Justice;

² The IWG's activities will be reported to the appropriate Program Component Areas (s) (PCAs).

³ Changes to membership may occur without requiring a charter amendment. After charter ratification, membership and changes to membership may be tracked in a separate document.

- National Aeronautics and Space Administration; and
- National Science Foundation.

The following components of the Executive Office of the President may also be represented on the SPSQ IWG:

- Office of Management and Budget; and
- Office of Science and Technology Policy.

Federal departments, agencies, and councils that participate in the SPSQ IWG's activities include:

- Department of Labor;
- Nuclear Regulatory Commission; and

such other Executive organizations, departments, and agencies as the Subcommittee or IWG Co-chairs may designate as appropriate.

F. Leadership

The Co-chairs of the SPSQ IWG shall be named and approved by the NITRD Subcommittee Co-chairs.

G. Private-Sector Interface

The SPSQ IWG may work with appropriate private-sector⁴, including the President's Council of Advisors on Science and Technology, and will recommend to the NITRD Subcommittee the nature of any additional private-sector advice needed to accomplish its mission. The SPSQ IWG may interact with and receive *ad hoc* advice from various private-sector groups, consistent with the Federal Advisory Committee Act.

H. Resources

The NITRD NCO shall provide project management, technical, information technology/networking, and administrative support services to the SPSQ IWG as part of its responsibilities to the NITRD Subcommittee.

I. Termination

Unless renewed by the Co-chairs of the NITRD Subcommittee prior to its expiration, the SPSQ IWG shall terminate no later than December 30, 2017.

⁴ The Federal Advisory Committee Act, 5 U.S.C. App., as amended, does not explicitly define "private sector", but the phrase is generally understood to include individuals or entities outside the Federal government such as, but not limited to, the following: non-Federal sources, academia, State, local or tribal governments, individual citizens, the public, non-governmental organizations, industry associations, and international bodies.

J. Determination

I hereby determine that the establishment of the Software Productivity, Sustainability, and Quality Interagency Working Group is in the public interest in connection with the performance of duties imposed by the Executive Branch by law, and that such duties can be performed through the advice and counsel of such a group.

Approved:

Keith A. Marzullo, Ph.D. 3/1/16

Co-chair

Subcommittee, Networking and Information
Technology R&D

James Kurose, Ph.D. 3/2/16

Co-chair

Subcommittee, Networking and Information
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